

STEP/G

AlEco[®]62Sn

DATA SHEET

GENERAL PROPERTIES

- Mechanical properties equivalent to AA6262.
- Medium strength. Highest strength in T9 temper. Lower internal stresses in T8 and T6.
- Excellent machinability with small chips and limited tool wear (slightly better than AA6262/AlMg1SiPb and similar to AA2011/AlCu6BiPb).
- Excellent surface finish after machining, grinding and/or polishing.
- 100% Lead-free, i.e. lead is not introduced intentionally and is only present as an impurity.
- Good hard anodizing properties (similar to AA6061/AlMg1SiCu).
- Good corrosion resistance (similar to AA6061 and better than AA2011).
- Brake fluid with water can attack anodized parts at a temperature above 140°C.

PHYSICAL PROPERTIES

- Elastic modulus: 69 GPa
- Specific weight: 2.72 kg/dm³
- Thermal conductivity (25°C): 172 W/mK
- Thermal expansion (20-100°C): ± 23.4 µm/mK
- Electrical conductivity (20°C): 26 MS/m

CHEMICAL COMPOSITION

AlEco62Sn is registered at the Aluminium Association with the alloy designation 6262A.

| % | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti | Bi | Sn | each | total |
|-----|------|-----|------|------|-----|------|------|------|------|------|------|-------|
| min | 0.40 | - | 0.15 | - | 0.8 | 0.04 | - | - | 0.40 | 0.40 | - | - |
| max | 0.8 | 0.7 | 0.40 | 0.15 | 1.2 | 0.14 | 0.25 | 0.10 | 0.9 | 1.0 | 0.05 | 0.15 |

SANKYO TATEYAMA EUROPE PRODUCTION POSSIBILITIES

- ROUND, SQUARE AND FLAT BARS
CIRCUMSCRIBED CIRCLE
EXTRUDED: 9 – 220 mm
DRAWN: 9 – 120 mm
- SOLID SECTIONS
- ALL TEMPER AND STANDARDS
- INDIRECT/DIRECT EXTRUSION
- HEAT TREATMENT
- DRAWING, STRAIGHTENING & CHAMFERING
- STRESS RELIEVING
- ANNEALING & AGEING
- ULTRASONIC & EDDY CURRENT INSPECTION

APPLICATION

- Machining of aluminium parts on multi spindle lathe (i.e. fittings, gears, bearings, nozzles, valve components, hydraulic parts, ...).
- AlEco62Sn is a 100% lead free and environmentally-friendly alternative to machining alloys like AA6012/AlMgSiPb, AA6018, AA2030/2007/AlCu4PbMg and AA6262.
- According to the EC Directive 2000/53/EC on end-of-life vehicles and the Directive 2002/95/EC on waste electrical equipment.

MECHANICAL PROPERTIES

| Temper | | R _m [MPa] | R _{p0.2} [MPa] | A5 | Hardness [HB] |
|--------|----------|----------------------|-------------------------|----|---------------|
| T9 | typical* | 395 | 388 | 7 | 100 |
| | minimum | 360 | 330 | 4 | |
| T8 | typical* | 377 | 355 | 10 | 99 |
| | minimum | 345 | 315 | 4 | |
| T6 | typical* | 363 | 328 | 12 | 95 |
| | minimum | 290 | 240 | 10 | |

* Typical values refer to rods between Ø 14mm and Ø40mm at room temperature and should not be used for design purposes. Minimum values can be optimized according to product requirements.